"METHOD OF STIMULATING GROWTH OF MELANOCYTE PRECURSOR CELLS AND TREATMENT OF PIGMENTATION DISORDER BY ADMINISTERING STEM CELL FACTOR"

In the Specification

Please update the priority information as follows:

At page 1, replace paragraph 1, beginning line 3 as follows:

E1 --This is a continuation application of U.S. application Serial No. 08/449,649, filed May 24, 1995, now abandoned, which is a divisional application of U.S. application Serial No. 08/172,329 filed December 21, 1993, now U.S. patent No. 6,218,148 issued April 17, 2001, which is a continuation of U.S. application Serial No. 07/982,255 filed November 25, 1992, now U.S. patent No. 6,204,363 issued March 20, 2001, which is a continuation of U.S. application Serial No. 07/684,535 filed April 10, 1991, now abandoned, which is a continuation-in-part of U.S. application Serial No. 07/589,701 filed October 1, 1990, now abandoned, which is a continuation-in-part application of U.S. application Serial No. 07/573,616 filed August 24, 1990, now abandoned, which is a continuation-in-part application of U.S. application Serial No. 07/537,198 filed June 11, 1990, now abandoned, which is a continuation-in-part application of U.S. application Serial No. 07/422,383 filed October 16, 1989, now abandoned, each of which are hereby incorporated by reference.--

Please amend the references to U.S. patent application Serial Nos. as follows.

At page 24, replace paragraph 2, beginning line 21

E2 --Isoforms of SCF are isolated using standard techniques such as the techniques set forth in commonly owned U.S. Serial No. 421,444, entitled Erythropoietin Isoforms, filed October 13, 1989, now abandoned, hereby incorporated by reference.--

At page 85, replace paragraph 1, beginning line 1:

E3 --Vector pDSVE is described in commonly owned U.S. Ser. Nos. 025,344, now U.S.

Patent No. 5,175,255 issued Dec. 12, 1992, and 152,045, now abandoned, hereby incorporated by reference. The vector portion of V19.8 and pDSVE.1 ColE1 origin of replication and ampicillin resistance gene and the SV40 origin of replication. This overlap may contribute to homologous recombination during the transformation process, thereby facilitating co-transformation. --

E3

At page 182, replace paragraph 1, beginning line 1:

--Plasmid constructions for expression of numerous SCF analogs and fragments have been made. Site-directed mutagenesis had been used to prepare plasmids with initiating methionine codon followed by codons for amino acids 1 to 178, 173, 168, 166, 163, 162, 161, 160, 159 158 157 156 148 145 141 137, using the numbering of Figure 15C. The DNA for human SCF^{1-183} (Example 6B) was cloned into MP11 from Xba1 to BamH1. Phage from this cloning was used to transfect an *E. coli* dut^- ung^- strain, R21032. Single stranded M13 DNA was prepared from this strain and site-directed mutagenesis was performed (reference IL-2 patent). After the site-directed mutagenesis reactions, the DNAs were transformed into an *E. coli* dut^+ ung^+ strain, JM101. Clones were screened and sequences as described in copending U.S. application Serial No. 717,334, filed March 29, 1985. Plasmid DNA preps were made from positive clones and the SCF regions from Xba1 to BamH1 were cloned into pCFM1656 as described in copending U.S. patent application Serial No. 501,904, filed March 29, 1990, now abandoned. The oligonucleotides for each cloning were designed to substitute a stop codon for an amino acid codon tat the appropriate position for each analog.--

E4

Please amend the brief description of drawings as follows:

At page 11, lines 24-25

--Figure 24 shows the effect of recombinant rat SCF on curing the macrocytic anemia of Steel mice, as assessed by hematocrit analysis (24A) or mean red blood cell volume (24B).--

E5

At page 12, lines 4-6

--Figure 29 shows the effect of recombinant human sequence SCF treatment of

E6

normal primates in increasing WBC count.

E6 29A. expressed as white blood cells in [K/cmm]

29B. expressed as peripheral blood cells in [K/cmm].--

At page 12, lines 8-10

E7 --Figure 30 shows the effect of recombinant human sequence SCF treatment of normal primates in increasing hematocrits (30B) and platelet numbers (30A).--

At page 13, lines 26-27

E8 --Figures 42A-42D show human SCF cDNA sequence obtained from the HT1080 fibrosarcoma cell line.--

At page 13, lines 33-34

E9 --Figures 44A-44C show human SCF cDNA sequence obtained from the 5637 bladder carcinoma cell line.--

At page 15, lines 10-11

E10 --Figure 56 shows 5-FU effect on ACH+ cells in marrow (56A) and spleen (56B).

In the Claims

71. [RENUMBERED] A method of stimulating growth of melanocyte precursor cells in a human, the method comprising the step of administering to the human, an amount of a human stem cell factor (SCF) polypeptide and optionally a pharmaceutically acceptable carrier.

E11 72. [RENUMBERED AND AMENDED] The method of claim 71 wherein stem cell factor polypeptide selected is selected from the group consisting of amino acids 1-162, 1-164, and 1-165 as set out in SEQ ID NO: 46, said polypeptide optionally consisting of an N-terminal methionine.